WASTEWATER LAND APPLICATION PERMIT LA-000053-02

Southside Water and Sewer District

The Southside Water and Sewer District, P.O. Box "D", Sandpoint, Idaho 83864, IS HEREBY AUTHORIZED TO CONSTRUCT, INSTALL AND OPERATE A WASTEWATER-LAND APPLICATION TREATMENT SYSTEM IN ACCORDANCE WITH THE WASTEWATER-LAND APPLICATION RULES (IDAPA 58.01.17), THE WATER QUALITY STANDARDS AND WASTEWATER TREATMENT REQUIREMENTS (IDAPA 58.01.02), AND THE GROUND WATER QUALITY RULE (IDAPA 58.01.11) AND ACCOMPANYING PERMIT APPENDICES AND REFERENCE DOCUMENTS. THIS PERMIT IS EFFECTIVE FROM THE DATE OF SIGNATURE AND EXPIRES ON 1/19/2007.

Swen P. Fransen

Coeur d'Alene Regional Office Administrator Idaho Department of Environmental Quality

Signed this 19 day of July, 2002

DEPARTMENT OF ENVIRONMENTAL QUALITY 2110 Ironwood Parkway Coeur d'Alene, Idaho 83814

(208) 769-1422 (208) 769-1404 fax

POSTING ON SITE RECOMMENDED

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B. Permit Contents and Reference Documents

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The Sections, Appendices, and Reference Documents listed on this page are all elements of Wastewater-Land Application Permit and are enforceable as such. This permit does not relieve the permittee from responsibility for compliance with other applicable federal, state or local laws, rules, standards or ordinances.

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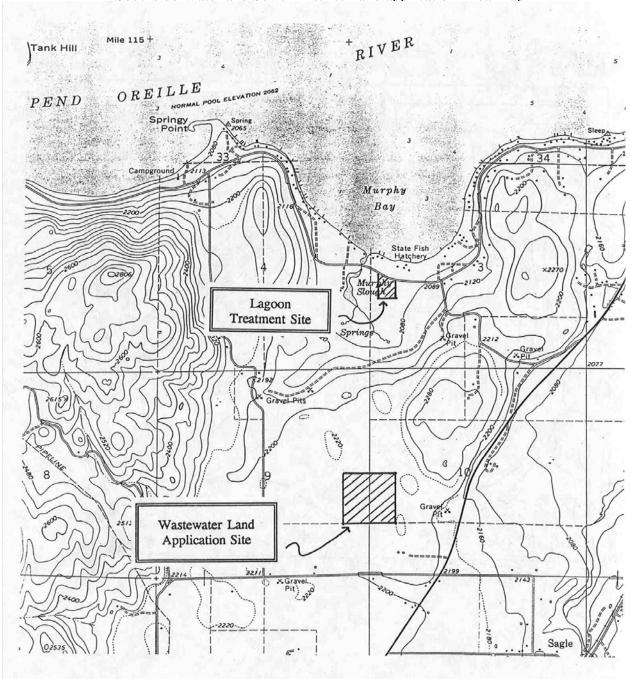
C. Facility Information

Legal Name of Permittee	Southside Water and Sewer District	
Type of Wastewater	Municipal Wastewater	
Method of Treatment	Raw wastewater is treated in two aerated lagoons. Two additional lagoons are used for clarification, settling and storage. The effluent is disinfected with chlorine and used for slow rate land application.	
Type of Facility	Water and Sewer District	
Site Acres	27.8 acres	
Facility Location	The treatment/storage lagoons are on the south side of Lakeshore Drive approximately 1.5 miles west of US 95. The land application site is on the south side of Linscott Road approximately 0.35 miles west of US 95.	
Legal Location	T56N, R2W, Sections 9 and 10	
County	Bonner	
USGS Quad	Sagle	
Soils on Site	"Vay-Ardtoo-Lenz" (silt loam over permeable soils)	
Depth to Ground Water	Depth to ground water ranges from 44 to 100 feet	
Beneficial Uses of Ground Water	Drinking Water	
Nearest Surface Water	Pend Oreille River is about 1 mile north of the application site.	
Beneficial Uses of Surface Water	Drinking Water and Recreation	
Facility Contact Person Mailing Address Phone/Fax Number	Mr. Gary Wescott (Chairman) Southside Water and Sewer District P. O. Box "D" Sandpoint, Idaho 83864 (208) 263-2976	

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D. Site Map(s)

Southside Water and Sewer District Land application Area Map



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D. Site Map(s)

Southside Water and Sewer District Land Application Site COMPLETE FENCING PER DETAIL ACCESS ROAD (SEE DETAIL) DILET PIPE FLOOR ELEV. 2205 FT. FLOATING INTAKE STRUCTURE SPRINKLER AREA = 27.77 ACRES

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E. Environmental Monitoring Serial Numbers

Computerized Data Reporting Serial Number Key

HYDRAULIC MANAGEMENT UNITS

Serial Number	Description	Acres
MU-005301	Land application site	27.8

WASTEWATER SAMPLING POINTS

Serial Number	Description
WW-005301	Effluent to land application
WW-005302	Influent to treatment facility

SOIL MONITORING UNITS

Serial Number	Description	Associated Hydraulic Mgmt Unit
SU-005301	Land application site	MU-005301

GROUND WATER MONITORING

Serial Number	Description	Location
GW-005301	Private well MW-1 (Frank Linscott)	Near storage lagoon
GW-005302	Private well MW-2 (Matt Linscott)	Southwest of land application site
GW-005303	Private well MW-3 (Greg Oliver)	Northwest of land application site
GW-005304	Private well MW-4 (Ray & Nina Robbs)	West of land application site

LAGOONS

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E. Environmental Monitoring Serial Numbers Computerized Data Reporting Serial Number Key

Serial Number	Description	Location
LG-005301	Aerated lagoon #1	Northeast lagoon
LG-005302	Aerated lagoon #2	Southeast lagoon
LG-005303	Finishing lagoon	West lagoon
LG-005304	Storage lagoon	Land application site

F. Reference Documents Incorporated or to be Incorporated into the Permit

Plan of Operation (Operation and Maintenance Manual)
 Note: Refer to Section G, compliance activity CA-053-01 and to Section L, no. 1

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G. Compliance Schedule for Required Activities

The Activities in the following table shall be completed on or before the Completion Date unless modified by the DEQ in writing.

Compliance Activity Number Completion Date	Compliance Activity Description
CA-053-01 One year after permit issuance	The Plan of Operation (Operations and Maintenance Manual) shall be updated to incorporate the requirements of this permit and submitted to DEQ for review and approval. The Plan shall be updated to include all control and monitoring equipment installed during recent system upgrades. The Plan shall document current treatment system information and operating procedures required to meet permit limits and conditions, monitoring requirements, and reporting requirements.
CA-053-02 Before the end of the 2002 growing season and; 6 months prior to permit expiration, submit a new seepage test with the permit renewal application	Conduct seepage rate testing in accordance with the DEQ uniform seepage test procedures (DEQ program guidance No. MFC-8) or a method approved by the DEQ for the four wastewater lagoons If the lagoons exceed seepage rate criteria or are resulting in surface or ground water quality violations, the permittee shall submit a plan and schedule, for DEQ review and approval, to either repair or replace the lagoon(s).
CA-053-03 Prior to expanding the system to accommodate new sewer connections	Investigate options to accommodate the expected future needs of the sewer district. Submit to DEQ for review and approval.
CA-053-04 Before the end of the 2002 growing season	Conduct a well acceptability analysis for all wells less than 500 feet from the land application site as per the DEQ guidance manual, pages IV-19 through IV-23. Until the well acceptability analysis is completed, all wells within 500 feet of the land application site will need to be monitored and tested in accordance with section J of this permit. The well acceptability analysis for these wells shall be submitted to DEQ for review and approval. DEQ may require further well monitoring or add further requirements to this permit as a result of the well acceptability analysis for these wells.

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H. Special Conditions

This section is not applicable for this permit. sections I and J.	Site specific conditions are specified in

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I. Permit Limits and Conditions

1) The Permittee is allowed to apply wastewater and treat it on a land application site as prescribed in the tables below and in accordance with all other applicable permit conditions and schedules.

Category	Permitted Limits and Conditions				
Type of Wastewater	Municipal Wastewater				
Application Site Area	27.8 acres, see Section D, Figure 2				
Application Season	Growing Season only, April 1 through September 30 (183 days)				
Maximum Monthly Hydraulic Loading Limits	Month Application Inches Maximum Application in Million gallons (27.8 acres)				
	April	2.1	1.6		
	May	4.4	3.3		
	June	5.1	3.8		
	July	8.3	6.3		
	August	5.8	4.4		
	September	2.9	2.2		
	Total	28.6	21.6		
	Wastewater land application is not allowed during the non-growing season or when the ground is frozen. No ponding or runoff of wastewater from the approved land application site is allowed.				
Down gradient ground water	Ground Water Quality shall be in compliance with <i>Idaho Ground Water Quality Rule</i> IDAPA 58.01.11				
Maximum Nitrogen Application Rate – from all sources	125% of crop uptake, or UI Fertility Guide				
Maximum Phosphorus Application Rate – from all sources	125% of crop uptake, or UI Fertility Guide				
Grazing	Grazing is not allo	owed			

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I. Permit Limits and Conditions

Category		Permitted Limits and Conditions						
Allowable crops		Crops grown for direct human consumption (those crops that are not processed prior to consumption) are not allowed.						
Signing		Signs shall be posted every 500 feet designating the fields as wastewater reuse areas or equivalent			as wastewater			
Buffer Zone Distances, feet (based on sprinkler irrigation)	Disinfo Lev (tot colifo	el* tal	Distance to Public Access	Distances to Inhabited Dwellings	Distance to streams	Distance to private Water Sources	Distance to public Water sources	Single Sample maximum total coliform level
	23/10	0 ml	50	300	100	500	1,000	240/100ml

^{*} For determining compliance with the 23/100 ml disinfection level, the median value of the last five (5) results must not exceed 23/100 ml. In addition, no single sample value shall exceed 240/100 ml.

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^{**} For all wells not meeting the 500 foot buffer zone requirement, a well acceptability analysis will need to be performed. Until the well acceptability analysis is performed, all wells within the 500 foot buffer zone will need to be monitored and tested in accordance with section J of this permit. DEQ may require further well monitoring or add further requirements to this permit as a result of the well acceptability analysis for each well.

J. Monitoring Requirements

- 1) Appropriate analytical methods, as given in the *Handbook for Land Application of Municipal and Industrial Wastewater*, *April 1996*, or as approved by the Idaho Department of Environmental Quality (hereinafter referred to as DEQ), shall be employed. A description of approved sample collection methods, appropriate analytical methods and companion QA/QC protocol shall be included in the Operation and Maintenance Manual.
- 2) The permittee shall monitor and measure parameters as stated in the Facility Monitoring Schedule in this section. Samples shall be collected at times and locations that represent typical environmental and process parameters being monitored.
- 3) Monitoring locations are described in Section E. Environmental Monitoring Serial Numbers.
- 4) Five (5) soil sample locations shall be selected for each management unit. Two (2) soil samples shall be collected at each sample location, one at 0-12 inches and one at 12-24 inches. The soil samples collected at 0-12 inches from each sample location shall be composited. Similarly, all soil samples collected at 12-24 inches shall be composited. This method will yield two samples for analysis, one for 0-12 inches and one for 12-24 inches for each soil management unit.
- 5) Ground water monitoring wells shall be purged a minimum of three (3) casing volumes prior to obtaining a sample of ground water. The static water level shall be measured prior to pumping or sampling the ground water.

Facility Monitoring Schedule

Frequency	Monitoring Point	Description and Type of Monitoring	Parameters
Daily (when land applying)	Discharge Point of Wastewater to Land Application	Grab sample	Chlorine residual (free chlorine)
Weekly (when land applying)	Discharge Point of Wastewater to Land Application	Grab sample	Total Coliform
Monthly	Wastewater influent flow meter at the treatment facility	Volume of wastewater into the treatment system	Total gallons per month
Monthly (when land applying)	Discharge Point of Wastewater to Land Application	Volume of Wastewater land applied	Gallons/Month and acreinches/month applied
Monthly (when land applying)	Discharge Point of Wastewater to Land Application	Grab sample	Total Kjeldahl nitrogen, nitrate+nitrite-nitrogen, total phosphorus

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J. Monitoring Requirements

Frequency	Monitoring Point	Description and Type of Monitoring	Parameters
Twice per year in July and October	All private wells within 500 feet of the land application site (4 wells appear to be within 500 feet at this time). Wells may be removed from monitoring in this section if CA-053-05 justifies removal.	Grab sample (see note 5)	Static water level, nitrate- nitrogen, total dissolved solids, total iron, total manganese, chloride, pH, total coliform
	(With documentation of owner's permission prior to taking sample or owner must decline permission in writing)		
Annually	Soil Monitoring unit	Composite soil sample (see note 4)	Electrical Conductivity, nitrate- nitrogen, ammonium-nitrogen, plant available phosphorous, pH
Annually	Hydraulic management unit	Acres used for land application	Acres
Annually	Hydraulic management unit	Total nitrogen and phosphorus loading calculation from wastewater	Nitrogen and phosphorus applied in pounds/acre-year
Annually	Hydraulic management unit	Total nitrogen and phosphorus load from fertilizer or other non-wastewater application	Nitrogen and phosphorus applied in pounds/acre-year
Annually	Hydraulic management unit	Crop type and crop yield	Yields in tons/acre or pounds/acre
Annually	Hydraulic management unit	Crop nutrient uptake from crop tissue analysis or from standard tables for crop type and yield	Nitrogen and phosphorus uptake in pounds/acre-year

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K. Reporting Requirements

The permittee shall submit an Annual Wastewater-Land Application Site Performance Report ("Annual Report") prepared by a competent environmental professional no later than January 31 of each year which shall cover the previous year from January 1 through December 31. The Annual Report shall include results for monitoring required in Section E, status of compliance activities, and an interpretive discussion of monitoring data (ground water, vadose zone, hydraulic loading, wastewater etc.) with particular respect to environmental impacts by the facility.

Note: If the permittee monitors any parameter more frequently than required by this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the annual report.

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L. Standard Permit Conditions: Procedures and Reporting

- 1. The permittee shall at all times properly maintain and operate all structures, systems, and equipment for treatment, operational controls and monitoring, which are installed or used by the permittee to comply with all conditions of the permit or the Wastewater-Land Application Permit Regulations, in conformance with a DEQ approved, current Plan of Operations (Operations and Maintenance Manual) which describes in detail the operation, maintenance, and management of the wastewater treatment system. This Plan of Operations shall be updated as necessary to reflect current operations.
- 2. Wastewater(s) or recharge waters applied to the land surface must be restricted to the premises of the application site unless permission has been obtained from the DEQ authorizing a discharge into the waters of the State as stated in IDAPA 58.01.02.600.02.
- 3. Wastewater must not create a public health hazard or nuisance condition as stated in IDAPA 58.01.02.600.03. In order to prevent public health hazards and nuisance conditions the permittee shall:
 - a. Apply wastewater as evenly as practicable to the treatment area;
 - b. Prevent organic solids (contained in the wastewater) from accumulating on the ground surface to the point where the solids putrefy or support vectors or insects; and
 - c. Prevent wastewater from ponding in the fields to the point where the ponded wastewater putrefies or supports vectors or insects.

4. The permittee shall:

- a. Manage the wastewater land application treatment site as an agronomic operation where vegetative cover is grown and harvested or grazed to utilize the nutrients and minerals in the wastewater, and,
- b. Not hydraulically overload any particular areas of the wastewater land application treatment site.
- 5. All waste solids, including dredgings and sludges, shall be utilized or disposed in a manner which will prevent their entry, or the entry of contaminated drainage or leachate therefrom, into the waters of the state such that health hazards and nuisance conditions are not created; and to prevent impacts on designated beneficial uses of the ground water and surface water. The permittee's management of waste solids shall be governed by the terms of the DEQ approved Waste Solids Management Plan, which upon approval shall be an enforceable portion of this permit.
- 6. If the permittee intends to continue operation of the permitted facility after the expiration of an existing permit, the permittee shall apply for a new permit at least six months prior to the expiration date of the existing permit in accordance with the Waste Water Land Application Permit Regulations and include seepage tests on all lagoons per latest DEQ procedures.
- 7. The permittee shall allow the Director of the Idaho Department of Environmental Quality or the Director's designee (hereinafter referred to as Director), consistent with Title 39, Chapter 1, Idaho Code, to:
 - a. Enter the permitted facility,
 - b. Inspect any records that must be kept under the conditions of the permit.
 - c. Inspect any facility, equipment, practice, or operation permitted or required by the permit.
 - d. Sample or monitor for the purpose of assuring permit compliance, any substance or any parameter at the facility.
- 8. The permittee shall report to the Director under the circumstances and in the manner specified in this section:
 - a. In writing thirty (30) days before any planned physical alteration or addition to the permitted facility or activity if that alteration or addition would result in any significant change in information that was submitted during the permit application process.
 - b. In writing thirty (30) days before any anticipated change which would result in non-compliance with any permit condition or these regulations.

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L. Standard Permit Conditions: Procedures and Reporting

c. Orally within twenty-four (24) hours from the time the permittee became aware of any non-compliance which may endanger the public health or the environment at telephone numbers provided in the permit by the Director (see below)

DEQ Regional Office: see Permit Certificate Page Emergency 24 Hour Number 1-800-632-8000

- d. In writing as soon as possible but within five (5) days of the date the permittee knows or should know of any on-compliance unless extended by the DEQ. This report shall contain:
 - i. A description of the non-compliance and its cause;
 - ii. The period of non-compliance including to the extent possible, times and dates and, if the non-compliance has not been corrected, the anticipated time it is expected to continue; and
 - iii. Steps taken or planned to reduce or eliminate reoccurrence of the non-compliance.
- e. In writing as soon as possible after the permittee becomes aware of relevant facts not submitted or incorrect information submitted, in a permit application or any report to the Director. Those facts or the correct information shall be included as a part of this report.
- 9. The permittee shall take all necessary actions to prevent or eliminate any adverse impact on the public health or the environment resulting from permit noncompliance.
- 10. The permittee shall determine (on an on-going basis) if any noxious weed problems relate to the permitted sites. If problems are present, coordinate with the Idaho Department of Agriculture or the local County authority regarding their requirements for noxious weed control. Also address these control operations in an update to the Operations and Maintenance Manual.

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M. Standard Permit Conditions: Modifications, Violations, and Revocations

- 1. The permittee shall furnish to the Director within reasonable time, any information including copies of records, which may be requested by the Director to determine whether cause exists for modifying, revoking, re-issuing, or terminating the permit, or to determine compliance with the permit or these regulations.
- 2. Both minor and major modifications may be made to this permit as stated in IDAPA 58.01.17.700.01 and 02 with respect to any conditions stated in this permit upon review and approval of the DEQ.
- 3. Whenever a facility expansion, production increase or process modification is anticipated which will result in a change in the character of pollutants to be discharged or which will result in a new or increased discharge that will exceed the conditions of this permit, or if it is determined by the DEQ that the terms or conditions of the permit must be modified in order to adequately protect the public health or environment, a request for either major or minor modifications must be submitted together with the reports as described in G. Reporting Requirements, and plans and specifications for the proposed changes. No such facility expansion, production increase or process modification shall be made until plans have been reviewed and approved by the DEQ and a new permit or permit modification has been issued.
- 4. Permits shall be transferable to a new owner or operator provided that the permittee notifies the Director by requesting a minor modification of the permit before the date of transfer.
- 5. Any person violating any provision of the Waste Water Land Application Permit Regulations, or any permit or order issued thereunder shall be liable for a civil penalty not to exceed ten thousand dollars (\$10,000) or one thousand dollars (\$1,000) for each day of a continuing violation, whichever is greater. In addition, pursuant to Title 39, Chapter 1, Idaho Code, any willful or negligent violation may constitute a misdemeanor.
- The Director may revoke a permit if the permittee violates any permit condition or the Wastewater Land Application Permit Regulations.
- 7. Except in cases of emergency, the Director shall issue a written notice of intent to revoke to the permittee prior to final revocation. Revocation shall become final within twenty (20) days of receipt of the notice by the permittee, unless within that time the permittee request an administrative hearing in writing to the Director.
- 8. The Director shall notify the permittee in writing of any revocation hearing at least twenty (20) days prior to the date set for such hearing. The hearing shall be conducted in accordance with Title 67, Chapter 52, Idaho Code.
- 9. If, pursuant to Idaho Code [] 67-5247, the Director finds the public health, safety or welfare requires emergency action, the Director shall incorporate findings in support of such action in a written notice of emergency revocation issued to the permittee. Emergency revocation shall be effective upon receipt by the permittee. Thereafter, if requested by the permittee in writing the Director shall provide the permittee a revocation hearing and prior notice thereof. Such hearings shall be conducted in accordance with Title 67, Chapter 52, Idaho Code.
- 10. The provisions of this permit are severable and if a provision or its application is declared invalid or unenforceable for any reason, that declaration will not affect the validity or enforceability of the remaining provisions.
- 11. The permittee shall notify the DEQ at least six (6) months prior to permanently removing any permitted land application site from service. Prior to commencing site closure activities, the permittee shall: a) participate in a pre-site closure meeting with the DEQ; b) develop a site closure plan that identifies specific closure or cleanup tasks with scheduled task completion dates in accordance with agreements made at the pre-site closure meeting; and c) submit the completed site closure plan to the DEQ for review and approval within forty-five (45) days of the pre-site closure meeting. The permittee must complete the DEQ approved site closure plan.

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